

Amendment

In the Claims

Claims 1-35 (cancelled)

36. (currently amended) A seed, for implantation into a subject, wherein the seed is a combination product comprising

- a) a biocompatible carrier,
- b) one or more therapeutic components,
- c) an imaging, radiopaque, or other diagnostic marker, and
- d) one or more structures to maintain location or orientation of the seed selected

from the group consisting of one or more biodegradable structures effective to prevent migration upon implantation of the seed in tissue, one or more biodegradable structures effective to maintain orientation in tissue, and one or more compliant setal or hair structures which impart adhesive properties upon implantation into a target tissue,

wherein the one or more structures effective to prevent migration or maintain orientation in tissue ~~are selected from the group consisting of~~ comprise studs, knobs, ribs, fins, grapple shaped anchors, wings, stabilizers, bristles, rings, bands, hooks, ~~knots, twists, braids, coils, and~~ or combinations thereof,

wherein the one or more structures prevents migration of the seed for a period of time from about 10 minutes to about three years,

AMENDMENT AND RESPONSE TO OFFICE ACTION

wherein the seed has a size and shape suitable for passing through the bore of a needle or catheter having an interior diameter of less than about 2.7 mm (10 gauge).

37. (previously presented) The seed of claim 36 wherein the seed is shaped into a cylinder or rod having a diameter of between about 0.8 to 3 mm and a length of up to 40 mm.

38. (previously presented) The seed of claim 36 wherein the biodegradable structures are comprised of polymeric substances.

39. (previously presented) The seed of claim 36 wherein the biodegradable structures are comprised of non-polymeric or inorganic substances.

40. (previously presented) The seed of claim 36 wherein more than one seed is formed as a continuous chain or array of seeds.

41. (previously presented) The seed of claim 40 wherein the chain or continuous array includes spacer material.

42. (previously presented) The seed of claim 40 wherein one or more seeds are elongated into strands to form a continuous chain or array of seeds.

43. (previously presented) The seed of claim 41 wherein the seeds and spacers in the chain or continuous array are indistinguishably linked.

44. (previously presented) The seed of claim 41 wherein the color, texture, diameter, hardness, or shape of the spacers is used for identification and demarcation.

AMENDMENT AND RESPONSE TO OFFICE ACTION

45. (previously presented) The seed of claim 40 wherein the chain or continuous array comprises indiscrete seeds, is flaccid, rigid, flexible, spring-shaped, coiled, spiral-shaped, springy, bent, latticed, knotted, interconnected, linked, or fused.

46. (currently amended) The seed of claim 41 wherein spacers are located at varying distances from one another, separated by one, two, three, four, five or more seeds or wherein the seeds are located at varying distances from one another, separated by one, two, three, four, five, or more spacers.

47. (canceled)

48. (currently amended) The seed of claim 36 wherein the structures to maintain location or orientation comprise a smart polymer, a shape memory polymer, or other substrate to achieve configuration modification.

49. (previously presented) The seed of claim 36 wherein the biocompatible carrier is elastic.

50. (previously presented) The seed of claim 36 wherein one or more of the therapeutic components is radioactive.

51. (previously presented) The seed of claim 36 wherein one or more of the therapeutic components is non-radioactive.

52. (previously presented) The seed of claim 36 wherein the imaging, radiopaque, or diagnostic marker is the biocompatible carrier.

AMENDMENT AND RESPONSE TO OFFICE ACTION

53. (currently amended) The seed of claim ~~[[36]]~~ 50 further comprising a means of tracing the radioactive contents comprising the radioactive component.

54. (previously presented) The seed of claim 53 wherein the tracer is fluorescent, luminescent, colored, pigmented, dyed, tagged, or quantum dots.

55. (previously presented) The seed of claim 36 wherein one or more of the components comprises a biodegradable magnetic polymer suitable for heating in a magnetic field.

56. (previously presented) The seed of claim 42, wherein two or more strands are combined to form a knot, twist, coil, or combinations thereof.

57. (previously presented) The seed of claim 40, wherein the chain of seeds is configured into a knot, twist, coil, or combinations thereof.

58. (currently amended) The seed of claim 36, wherein the one or more structures ~~[[to]]~~ that maintain location or orientation of the seed or impart adhesive properties to the seed, cover at least a portion of the seed.

59. (currently amended) The seed of claim 42, wherein the one or more structures to maintain location or orientation of the seed or impart adhesive properties to the seed cover at least a portion of the seed.

60. (currently amended) A seed, for implantation into a subject, wherein the seed is a combination product comprising

a) a biocompatible metallic carrier,

AMENDMENT AND RESPONSE TO OFFICE ACTION

b) one or more therapeutic components,

c) an imaging, radiopaque, or other diagnostic marker, and

d) one or more biodegradable structures to maintain location or orientation of the

~~seed selected from the group consisting of one or more biodegradable structures effective to prevent migration of the seed upon implantation in tissue, one or more biodegradable structures effective to maintain orientation in tissue, and one or more compliant setal or hair structures which impart adhesive properties,~~

wherein the one or more biodegradable structures effective to prevent migration or maintain orientation in tissue comprise one or more bands or rings, and one or more ribs or wings, and combinations thereof

wherein the seed has a size and shape suitable for passing through the bore of a needle or catheter having an interior diameter of less than about 2.7 mm (10 gauge).

61. (currently amended) The seed of claim 36, wherein the seed is administered using an apparatus for implanting seeds at ~~regularly spaced~~ designated intervals in tissue.

62. (currently amended) The seed of claim 42, wherein the seed is administered using an apparatus for implanting seeds at ~~regularly spaced~~ designated intervals in tissue.

63. (currently amended) The seed of claim 60, wherein the seed is administered using an apparatus for implanting seeds at ~~regularly spaced~~ designated intervals in tissue.

64. (previously presented) The seed of claim 61, wherein the seed is in a magazine or cartridge.

AMENDMENT AND RESPONSE TO OFFICE ACTION

65. (previously presented) The seed of claim 62, wherein the seed is in a magazine or cartridge.

66. (previously presented) The seed of claim 63, wherein the seed is in a magazine or cartridge.

67. (currently amended) The seed of claim 36, wherein the one or more structures prevents migration or maintains orientation of the seed for a period of time of at least about one hour.

68. (currently amended) The seed of claim 36, wherein the one or more structures prevents migration or maintains orientation of the seed for a period of time of at least about three weeks.

69. (currently amended) The seed of claim 36, wherein the one or more structures prevents migration or maintains orientation of the seed for a period of time of at least about three months.

70. (currently amended) The seed of claim 36, wherein the one or more structures prevents migration or maintains orientation of the seed for a period of time of at least about six months.

71. (previously presented) The seed of claim 36, wherein the one or more therapeutic components; imaging, radiopaque, or other diagnostic marker; or combinations thereof are within the one or more biodegradable structures.

AMENDMENT AND RESPONSE TO OFFICE ACTION

72. (currently amended) The seed of claim 36, wherein the one or more biodegradable structures comprise one or more ribs or wings.[.]

73. (previously presented)The seed of claim 60, wherein the one or more biodegradable structures comprise one or more ribs or wings.

74. (previously presented) The seed of claim 50, wherein the seed provides substantially uniform dosimetry.

75. (previously presented)The seed of claim 36, wherein the one or more biodegradable structures are in the form of a coating or sleeve that encapsulates at least a portion of the seed.

76. (previously presented)The seed of claim 60, wherein the one or more biodegradable structures are in the form of a coating or sleeve that encapsulates at least a portion of the seed.

77. (previously presented) The seed of claim 72, wherein the one or more biodegradable structures are in the form of a coating or sleeve that encapsulates at least a portion of the seed.

78. (previously presented) The seed of claim 73, wherein the one or more biodegradable structures are in the form of a coating or sleeve that encapsulates at least a portion of the seed.

79. (previously presented)The seed of claim 36, wherein the seed comprises radioactive and non-radioactive therapeutic components.

U.S.S.N. 10/665,793

Filed: September 19, 2003

AMENDMENT AND RESPONSE TO OFFICE ACTION

80-97. (cancelled)